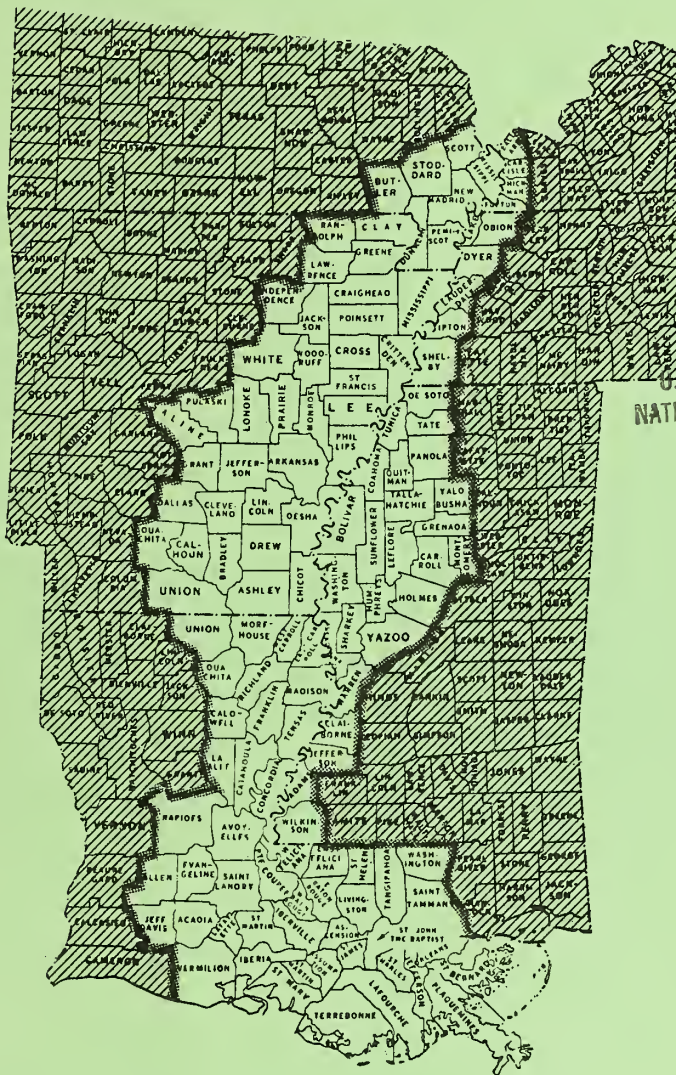


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SOIL SURVEY INTERPRETATIONS FOR WOODLANDS
IN THE
SOUTHERN MISSISSIPPI VALLEY ALLUVIUM AREA
OF
LOUISIANA, MISSISSIPPI, ARKANSAS, TENNESSEE, MISSOURI, AND KENTUCKY



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PROGRESS REPORT W-5 - - OCTOBER 1968

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Fort Worth, Texas

This report contains interpretations of soil surveys for woodland use and management in the Southern Mississippi Valley Alluvium Area of Louisiana, Mississippi, Arkansas, Tennessee, Missouri, and Kentucky. The purpose is to provide currently available knowledge about soils as they relate to the establishment, growth, management, and harvesting of wood crops for the use of foresters, agricultural workers, woodland owners, and woodland managers. The information will be used by the Soil Conservation Service and cooperating agencies in the development of work unit (county) technical guides, soil handbooks, and soil survey reports.

Field information was gathered by teams of foresters and soil scientists. Representatives of Federal and State agencies, the wood-using industry, and others cooperated in gathering field data. A major part of the site index data and species suitability information was furnished by the Southern Hardwood Laboratory of the U. S. Forest Service, Southern Forest Experiment Station, Stoneville, Mississippi. Information obtained from soil-woodland studies was recorded by soil taxonomic units. The interpretations presented herein are made for use with soil surveys.

Table 2, SOIL RATINGS FOR WOODLAND USE, includes some evaluations for individual taxonomic units. The soil series listed are those defined according to the current soil classification system. In column one (1), the common phases of series are listed. Where significant differences in productivity, species suitability, or management problems exist among phases of the same series, these phases are listed and rated separately.

Column two (2) includes a list of some of the commercially important tree species which are adapted to the soil in column one. These are the tree species which woodland managers generally favor in intermediate or

improvement cuttings, after considering the form and vigor of individual trees. Priority between species is influenced by local marketability and the owner's objectives, as well as by growth rates, values, and the quality of wood products from a given species.

Column three (3) indicates the average site index for the most important species listed in column two. The standard deviation is shown as a plus or minus figure (+) for each species where five or more plots were taken on the soil units listed in column one. Site index ratings without parenthesis are based on data from one to five samples. When no data was available, site index with parenthesis was used and it is an estimate based on site index of the same species on a similar soil, or by comparison with another species on the same soil. The site index curves used for each tree species are shown in Table 1, GUIDE FOR WOODLAND SUITABILITY CLASSES. Site index is the average height of dominant trees at age 30 for cottonwood, age 35 for sycamore, and age 50 for all other species.

Column four (4) indicates the range of site index of the most important tree species in column two. The range in site index values is dependent on soil physical conditions, aeration, and nutrient and moisture availability during the growing season.

Column five (5) evaluates the potential erosion hazard of the soil in woodland use following cutting operations, or where the soil is exposed along roads, trails, firebreaks, or log-yarding areas. A rating of slight indicates that problems of erosion control are unimportant. A rating of moderate indicates some attention must be given to prevent unnecessary soil erosion. A rating of severe indicates that intensive treatments, or special equipment and methods of operation should be planned to minimize

soil erosion. The potential erosion hazard is based on slope, soil depth, and erodibility, and soil loss tolerance.

Column six (6) includes evaluation of equipment restrictions. Ratings reflect limitations in the use of equipment for managing or harvesting the tree crop. A rating of slight indicates equipment use is seldom limited in kind or time of year. A rating of moderate indicates a need for modified equipment or seasonal restrictions due to slope, stones, obstructions, soil wetness, flooding, or overflows. A rating of severe indicates the need for specialized equipment due to one or more of the factors listed above.

Column seven (7) indicates the degree of expected seedling mortality during the first two growing seasons after planting or seeding. Normal rainfall, adequate site preparation, good planting stock, proper planting methods, and appropriate protection and cultivation are assumed. A rating of slight indicates that unsatisfactory survival on less than 25 percent of the area is likely. A rating of moderate indicates that unsatisfactory survival is likely on 25 to 50 percent of the area planted. A rating of severe indicates that unsatisfactory survival is likely on more than 50 percent of the area.

Column eight (8) lists several suitable tree species for planting on the soil named in column one. The list may include some species which do not normally occur in native stands on the designated soil or in this physiographic area, as well as some of the important species listed in column two.

Column nine (9) shows the ordination of the taxonomic units into a woodland suitability group. A woodland suitability group is made up of soils that are capable of producing similar kinds of wood crops, that

need similar management to produce these crops, and that have about the same potential productivity. The ordination system and the suitability group symbols are explained in the following paragraphs.

The first element of the group symbol indicates the woodland suitability class. It expresses site quality by an arabic numeral ranging from 1 to 5, with class 1 the highest in potential productivity, followed by class 2, 3, 4, and 5. It is based on the average site index of one or more indicator forest types or tree species, as shown in Table 1, GUIDE FOR WOODLAND SUITABILITY CLASSES. The indicator species are underscored in column two of Table 2.

The second element in the symbol indicates the suitability subclass. It expresses selected soil properties that cause moderate to severe hazards or limitations in woodland use or management, by one of the following lower case arabic letters:

Subclass w (excessive wetness). Soils in which excessive water, either seasonally or yearlong, causes significant limitations for woodland use or management. These soils have restricted drainage, high water tables, or overflow hazards which adversely affect either stand development or management.

Subclass s (sandy soils). Sandy soils with little or no textural B horizons and having moderate to severe restrictions or limitations for woodland use or management. These soils impose equipment limitations, have low moisture-holding capacity, and normally are low in available plant nutrients.

Subclass o (slight or no limitations). Soils with no significant restrictions or limitations for woodland use or management.

Some kinds of soil may have more than one set of subclass characteristics. Priority in placing each kind of soil into a subclass is in the order that the subclass characteristics are listed above.

The third element in the symbol indicates the degree of hazards or limitations, and the general suitability of the soils for certain kinds of trees. The three management problems considered here are: (1) erosion hazard, (2) equipment restrictions, and (3) seedling mortality.

The numeral 1 indicates soils with no to slight management problems, and they are best suited for needleleaf trees.

The numeral 2 indicates soils with one or more moderate management problems, and they are best suited for needleleaf trees.

The numeral 3 indicates soils with one or more severe management problems, and they are best suited for needleleaf trees.

The numeral 4 indicates soils with no to slight management problems, and they are best suited for broadleaf trees.

The numeral 5 indicates soils with one or more moderate management problems, and they are best suited for broadleaf trees.

The numeral 6 indicates soils with one or more severe management problems, and they are best suited for broadleaf trees.

The numeral 7 indicates soils with no to slight management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 8 indicates soils with one or more moderate management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 9 indicates soils with one or more severe management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 0 indicates the soils are not suitable for the production of major commercial wood products.

TABLE 1 - GUIDE FOR WOODLAND SUITABILITY CLASSES
SOUTHERN MISSISSIPPI VALLEY ALLUVIUM

Indicator Forest Type or Species		1	2	3	4	5
		Very		Moderately		
		High	High	High	Moderate	Low
		Site Index				
Cottonwood	(1):	106+	96-105	86-95	76-85	75-
Yellow-poplar	(2):	106+	96-105	86-95	76-85	75-
Sweetgum	(3):	96+	86-95	76-85	66-75	65-
Cherrybark oak	(4):	96+	86-95	76-85	66-75	65-
Nuttall oak	(5):	96+	86-95	76-85	66-75	65-
Water oak	(6):	96+	86-95	76-85	66-75	65-
Water tupelo	(7):	86+	76-85	66-75	56-65	55-
	:	:	:	:	:	:

- (1) Broadfoot, W. M., 1960, Field Guide for Evaluating Cottonwood Sites, USFS Occ. Paper 178 (Fig. 4).
- (2) Doolittle, W. T., 1957, Site Index Curves for Yellow-poplar-So. Appalachians.
- (3) Broadfoot, W. M., 1959, Guide for Evaluating Sweetgum Sites, USFS Occ. Paper 176 (Fig. 4).
- (4) Broadfoot, W. M., 1961, Guide for Evaluating Cherrybark Oak Sites, USFS Occ. Paper 190 (Fig. 3).
- (5) Broadfoot, W. M., Unpublished manuscript. Sou. For. Expmt. Sta., 1966.
- (6) Broadfoot, W. M., 1963, Guide for Evaluating Water Oak Sites in the Mid-South, USFS Res. Paper SO-1 (Fig. 4).
- (7) Applequist, M. B., 1959, Soil-Site Studies, Sou. Hardwoods (Fig. 7).

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 1 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1) ALLIGATOR clay, silty clay loam, clay undulating 0-8% slopes	(2) ash, green baldcypress cottonwood elm, American hack. & sugarberry hickory, water honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, water oak, willow persimmon sweetgum sycamore tupelo, water	(3) 78 + 5 -- 95 + 6 -- -- -- -- -- 92 + 10 89 + 9 -- 90 + 9 91 + 8 -- 92 + 7 -- --	(4) 56-90 -- 75-105 -- -- -- -- 78-97 77-96 -- 78-97 82-95 -- 80-99 -- --	(5) slight	(6) severe	(7) moderate	(8) ash, green baldcypress cottonwood oak, Nuttall oak, willow sweetgum sycamore	(9) 2 w 6
ALLIGATOR clay overflow 0-2% slopes	ash, green baldcypress cottonwood elm, American hack. & sugarberry hickory, water honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, water oak, willow persimmon sweetgum sycamore tupelo, water	(70) -- (90) -- -- -- -- -- (80) (80) -- (80) (80) -- (80) -- --	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	slight	severe	severe	ash, green baldcypress cottonwood oak, Nuttall sweetgum	3 w 6
AMAGON silt loam, silty clay loam 0-3% slopes	ash, green baldcypress cottonwood elm, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sweetgum sycamore tupelo, black	80 + 12 -- 103 -- -- 94 + 6 97 + 5 -- -- 96 + 8 98 + 5 -- -- 98 + 7 -- --	58-92 -- 83-113 -- -- 82-99 85-104 -- -- 84-103 88-102 -- -- 86-105 -- --	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore	1 w 6
ASKEW silt loam, fine sandy loam, fine sandy loam undulating 0-3% slopes	ash, green cottonwood elms, Am. & slippery oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 85-115 -- 90-110 80-100 -- -- 80-100 90-105 -- 90-110 -- -- --	slight	slight	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 o 4

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Page 2 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
BALDWIN clay, silty clay loam, silt loam, silty clay loam undulating clay undulating 0-3% slopes	ash, green baldcypress cottonwood elms, Am. & slippery honeylocust maple, red oak, Nuttall oak, overcup oak, water pecan persimmon sugarberry sweetgum sycamore	-- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 -- 80-110 -- -- -- -- -- -- -- -- -- 80-100 --	slight	severe	moderate	ash, green cottonwood sweetgum sycamore	2 w 6
BEULAH fine sandy loam, very fine sandy loam, sandy loam fine sandy loam undulating 0-8% slopes	ash, white cottonwood elms, Am. & slippery oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow- sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- --	-- 80-105 -- 85-105 75-90 -- -- 75-95 80-100 -- -- -- --	slight	slight	slight	cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sycamore yellow-poplar	2 o 4
BOSKET fine sandy loam, sandy loam, silt loam, fine sandy loam undulating 0-12% slopes	ash, green ash, white cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan tupelo, black sweetgum sycamore yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-80 -- 80-110 -- -- 85-110 80-95 -- -- 80-100 -- 85-105 -- -- 85-105 -- --	slight	slight	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 o 4
BOWDRE clay, silty clay silty clay loam, silty clay un- dulating 0-8% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sweetgum	(80) 109 + 10 -- -- -- -- 91 + 8 (95) -- -- -- 94 + 10 97 + 13 -- -- 94 + 10	58-97 89-124 -- -- -- -- 79-96 83-102 -- -- -- 82-101 87-101 -- -- 82-103	slight	moderate	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore	2 w 5

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 3 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
BRUIN silt loam, very fine sandy loam, silty loam undulating	cottonwood elms, Am. & slippery hack. & sugarberry maple, silver pecan persimmon	105 + 7 -- -- -- --	85-115 -- -- -- --	slight	slight	slight	cottonwood sweetgum sycamore	1 o 4
0-3% slopes	sweetgum sycamore	(105) --	93-112 --					
BRUNO sandy loam, loamy sand, loamy fine sand undulating	birch, river cherry, black cottonwood hackberry magnolia maple, red oak, cherrybark oak, Shumard oak, southern red oak, swamp chestnut oak, water oak, white oak, willow sweetgum sycamore tupelo, black walnut, black yellow-poplar	-- -- -- -- -- -- 116 -- -- -- -- 105 + 5 -- 88 113 + 2 -- -- -- -- --	-- -- -- -- -- -- -120 -- -- -- -- -112 -- -92 -115 -- -- -- -- --	slight	moderate	moderate	oak, cherrybark oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 s 5
0-8% slopes								
BUXIN clay, silty clay loam, silt loam, clay undulating	ash, green cottonwood elm, Am. & slippery hack. & sugarberry honeylocust oak, cherrybark oak, Nuttall oak, overcup oak, swamp chestnut oak, water oak, willow pecan sweetgum sycamore	70 + 3 90 -- -- -- 87 75 + 8 -- -- 86 89 -- 88 --	50-82 70-100 -- -- -- 75-92 63-82 -- -- 74-93 79-93 -- 76-95 --	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, water oak, willow sweetgum sycamore	2 w 6
0-3% slopes								
BUXIN clay overflow	ash, green cottonwood elm, Am. & slippery hack. & sugarberry honeylocust oak, cherrybark oak, Nuttall oak, overcup oak, swamp chestnut oak, water oak, willow pecan sweetgum sycamore	(70) (90) -- -- -- (80) (80) -- -- (80) (80) -- (80) --	-- -- -- -- -- -- -- -- -- -- -- -- --	slight	severe	severe	ash, green cottonwood oak, Nuttall sweetgum	3 w 6
0-2% slopes								

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Page 4 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CASPIANA silt loam, silty clay loam 0-3% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 90-120 -- -- 90-110 80-100 -- -- 80-100 -- -- 90-105 -- 90-110 -- -- --	slight	slight	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 o 4
COMMERCE sandy loam, silt loam, fine sandy loam, loam, silty clay loam, silt loam undulating, fine sandy loam undulating, silty clay loam un- dulating, silt loam frequently flooded. 0-5% slopes	ash, green baldcypress cottonwood elm, Am. & slippery hack. & sugarberry maple, silver oak, Nuttall oak, water pecan persimmon sycamore willow, black	80 -- 119 + 10 -- -- -- 90 109 -- -- -- -- --	58-95 -- 99-134 -- -- -- 78-97 97-116 -- -- -- -- --	slight	moderate	slight	ash, green cottonwood oak, Nuttall oak, water sycamore	1 w 5
CONVENT fine sandy loam, silt loam, silt loam un- dulating 0-3% slopes	ash, green baldcypress cottonwood elm, Am. & slippery hack. & sugarberry maple, silver oak, water pecan persimmon sassafras sweetgum sycamore willow, black	(80) -- 122 + 6 -- -- -- -- -- -- -- 110 -- -- --	58-95 -- 102-127 -- -- -- -- -- -- -- 98-117 -- -- --	slight	moderate	slight	ash, green cottonwood sweetgum sycamore	1 w 5
COUSHATTA silt loam, silty clay loam, silty clay loam un- dulating 0-3% slopes	cottonwood elms, Am. & slippery hack. & sugarberry pecan sweetgum sycamore	-- -- -- -- -- --	85-115 -- -- -- 90-110 --	slight	slight	slight	cottonwood sweetgum sycamore	1 o 4
CREVASSE sand, loamy sand, fine sand, fine sand undulating overflow 0-8% slopes	cottonwood hack. & sugarberry maple, silver pecan sycamore	107 + 16 -- -- -- --	77-112 -- -- -- --	slight	moderate	severe	cottonwood sycamore	3 s 6

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Page 5 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CYPRE MORT silt loam, silty clay loam silt loam undulating, silty clay loam undulating 0-5% slopes	ash, green cottonwood elms, Am. & slippery honeylocust maple, red oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sugarberry sweetgum sycamore	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 90-120 -- -- -- 90-110 90-110 -- -- 90-110 90-105 -- -- -- -- 90-110 --	slight	moderate	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore	2 w 5
DUBBS very fine sandy loam, silty clay loam, fine sandy loam, silt loam, loamy sand undulating, silt loam undulating 0-8% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 90-120 -- -- 90-100 80-100 -- -- 80-100 -- -- 90-105 -- 90-110 -- -- --	slight	slight	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 o 4
DUNDEE very fine sandy loam, fine sandy loam, clay loam, silty clay loam, silt loam, fine sandy loam undulating, silt loam undulating, 0-8% slopes.	ash, green cottonwood elms, Am. & slippery oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	(80) (100) -- 103 + 5 94 + 17 -- -- 94 + 7 (100) -- 98 + 7 -- -- -- --	58-92 80-110 -- 91-108 82-101 -- -- 82-101 90-104 -- 107-86 -- -- -- --	slight	moderate	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 w 5
EARLE clay, clay undulating, sandy clay loam undulating 0-8% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sweetgum sycamore	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 90-125 -- -- -- -- 80-100 85-100 -- -- -- 80-100 85-95 -- -- 80-105 --	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore	2 w 6

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Page 6 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
FORESTDALE very fine sandy loam, clay, silty clay, silty clay loam, silt loam 0-8% slopes	ash, green baldcypress cottonwood elms, Am. & slippery hack. & sugarberry honeylocust oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, willow persimmon sweetgum sycamore	78 + 5 -- (100) -- -- 94 + 3 99 + 10 -- -- -- -- 90 + 6 94 + 11 -- -- 100 + 2 --	56-90 -- 80-110 -- -- 82-99 87-106 -- -- -- -- 78-97 84-98 -- -- 88-107 --	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow oak, sweetgum sycamore	1 w 6
GALLION silt loam, silty clay loam, silt loam undulating, silty clay loam undulating 0-8% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry hickories oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	80 -- -- -- -- 95 -- -- -- 94 -- -- -- 93 -- -- -- --	58-92 -- -- -- -- 83-102 -- -- -- 82-101 -- -- -- 81-100 -- -- -- --	slight	slight	slight	ash, green oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water sweetgum sycamore yellow-poplar	2 o 4
clay, clay undulating				slight	moderate	moderate		-- -- -- -- 2 w 5
GOLDMAN very fine sandy loam 0-8% slopes	ash, green cottonwood elms, Am. & slippery oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-80 80-110 -- 90-110 80-100 -- -- 80-100 90-105 -- -- 90-110 -- -- -- --	slight	slight	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum yellow-poplar	2 o 4
HEBERT silt loam, silty clay loam, silt loam undulating, silty clay loam undulating 0-5% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust oak, cherrybark oak, Nuttall oak, overcup oak, swamp chestnut oak, water oak, willow pecan sweetgum sycamore	-- 95 -- -- -- 94 87 -- -- 90 -- -- -- (90) --	-- 85-105 -- -- -- 82-99 75-94 -- -- 78-97 -- -- -- 83-97 --	slight	moderate	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, swamp chestnut oak, water oak, willow sweetgum sycamore	2 w 5

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 7 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
IBERIA clay, silty clay loam, silty loam 0-2% slopes	ash, green baldcypress cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sweetgum sycamore	-- -- -- -- -- -- -- -- -- -- -- -- -- -- --	65-95 -- 80-110 -- -- -- -- -- -- -- -- -- 80-100 --	slight	severe	severe	ash, green cottonwood sweetgum sycamore	2 w 6
IBERIA clay overflow 0-2% slopes	ash, green baldcypress cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sweetgum sycamore	(70) -- (90) -- -- -- -- -- -- -- -- -- -- -- (80) --	-- -- -- -- -- -- -- -- -- -- -- -- -- -- --	slight	severe	severe	ash, green baldcypress cottonwood sweetgum	3 w 6
LATANIER clay, silty clay loam 0-3% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, water oak, willow pecan persimmon sweetgum sycamore	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-95 90-125 -- -- -- -- -- -- -- -- -- -- -- -- 85-105 --	slight	moderate	moderate	ash, green cottonwood sweetgum sycamore	2 w 5
LONOKE silt loam 0-1% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan sweetgum sycamore yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-80 85-115 -- -- 90-110 80-95 -- -- 80-100 -- 85-105 -- 90-110 -- --	slight	slight	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 o 4

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 8 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
MER ROUGE silt loam, silty clay loam 0-1% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Shumard oak, swamp chestnut oak, water oak, willow oak, white pecan sweetgum sycamore	-- -- -- -- -- -- -- -- -- -- -- -- --	60-80 75-105 -- -- -- -- -- -- -- -- -- 85-105 --	slight	slight	slight	ash, green cottonwood sweetgum sycamore	2 o 4
McGEHEE silt loam, silt loam undulating 0-3% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 85-110 -- -- 85-105 80-100 -- -- -- 80-100 -- 90-100 -- 85-100 -- -- --	slight	moderate	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 w 5
MHOON very fine silt loam, silt loam, silty clay loam, clay, fine sandy loam, sandy clay loam, silt loam undulating, silt loam overflow 0-3% slopes	ash, green baldcypress cottonwood elms, Am. & slippery hack. & sugarberry maple, silver oak, cherrybark oak, Nuttall oak, overcup oak, water oak, willow pecan persimmon sweetgum sycamore willow, black	88 + 5 -- 110 + 8 -- -- -- -- 84 + 3 -- -- 87 -- -- 98 + 8 -- --	73-100 -- 90-120 -- -- -- -- 75-91 -- -- 75-89 -- -- 86-105 -- --	slight	severe	moderate	ash, green baldcypress cottonwood oak, Nuttall oak, willow sweetgum sycamore willow, black	1 w 6
MORELAND clay, silty clay loam, silt loam, silty clay loam- clay undulating 0-5% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust pecan sweetgum sycamore	-- -- -- -- -- -- -- --	60-90 70-100 -- -- -- -- 80-100 --	slight	severe	moderate	ash, green cottonwood sweetgum sycamore	2 w 6
MORELAND clay overflow 0-2% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust pecan sweetgum sycamore	(70) (90) -- -- -- -- (80) --	-- -- -- -- -- -- -- --	slight	severe	severe	ash, green cottonwood sweetgum	3 w 6

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 2 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
NEWELLTON clay, silty clay loam, silty clay loam-clay undulating 0-3% slopes	ash, green	75 + 10	53-90	slight	moderate	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, water oak, willow pecan sweetgum sycamore	2 w 5
	cottonwood	(100)	80-115					
	elms, Am. & slippery	--	--					
	hack. & sugarberry	--	--					
	maple, red	--	--					
	oak, cherrybark	91	76-103					
	oak, Nuttall	84	69-91					
	oak, Shumard	--	--					
	oak, swamp chestnut	--	--					
	oak, water	89	77-96					
	oak, willow	95	85-99					
	pecan	--	--					
	sweetgum	94	82-105					
	sycamore	--	--					
NORWOOD clay, silty clay loam, silt loam, fine sandy loam, clay-silt loam-silty clay loam undulating 0-5% slopes	ash, green	90	73-100	slight	slight	slight	ash, green cottonwood sweetgum sycamore	1 o 4
	cottonwood	(115)	95-130					
	elms, Am. & slippery	--	--					
	hack. & sugarberry	--	--					
	honeylocust	--	--					
	pecan	--	--					
	sweetgum	(100)	88-109					
	sycamore	--	--					
PATTERSON loamy fine sand, loamy fine sand undulating 0-3% slopes	ash, green	--	60-80	slight	moderate	moderate	ash, green oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 s 5
	elm, American	--	--					
	oak, cherrybark	--	85-105					
	oak, Nuttall	--	75-90					
	oak, Shumard	--	--					
	oak, swamp chestnut	--	--					
	oak, water	--	75-95					
	oak, willow	--	80-100					
	sweetgum	--	80-100					
	sycamore	--	--					
	tupelo, black	--	--					
	yellow-poplar	--	--					
PERRY clay, silt loam, clay undulating 0-5% slopes	ash, green	72 + 9	50-84	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, water oak, willow sweetgum	2 w 6
	cottonwood	90	70-100					
	elms, Am. & slippery	--	--					
	hack. & sugarberry	--	--					
	honeylocust	--	--					
	oak, cherrybark	80 + 11	68-87					
	oak, Nuttall	81	69-88					
	oak, overcup	--	--					
	oak, swamp chestnut	--	--					
	oak, water	82 + 11	70-89					
	oak, white	--	--					
	oak, willow	71 + 8	66-75					
	pecan	--	--					
	sweetgum	92 + 5	80-99					
	sycamore	--	--					
PERRY clay overflow 0-2% slopes	ash, green	(70)	--	slight	severe	severe	ash, green cottonwood oak, Nuttall sweetgum	3 w 6
	cottonwood	(85)	--					
	elms, Am. & slippery	--	--					
	hack. & sugarberry	--	--					
	honeylocust	--	--					
	oak, cherrybark	(75)	--					
	oak, Nuttall	(75)	--					
	oak, overcup	--	--					
	oak, swamp chestnut	--	--					
	oak, water	(75)	--					
	oak, white	--	--					
	oak, willow	(70)	--					
	pecan	--	--					
	sweetgum	(80)	--					
	sycamore	--	--					

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 10 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
PORTLAND clay, silty clay loam, silt loam, silt loam-clay undulating 0-5% slopes	ash, green	--	60-90	slight	severe	moderate	ash, green	2 w 6
	baldcypress	--	--				cottonwood	
	cottonwood	--	80-110				sweetgum	
	elms, Am. & slippery	--	--				sycamore	
	honeylocust	--	--					
	oak, Nuttall	--	--					
	oak, overcup	--	--					
	oak, water	--	--					
	pecan	--	--					
	persimmon	--	--					
	sugarberry	--	--					
	sweetgum	--	80-100					
	sycamore	--	--					
PORTLAND clay overflow 0-2% slopes	ash, green	(70)	--	slight	severe	severe	ash, green	3 w 6
	baldcypress	--	--				baldcypress	
	cottonwood	(90)	--				cottonwood	
	elms, Am. & slippery	--	--				oak, Nuttall	
	honeylocust	--	--				sweetgum	
	oak, Nuttall	(80)	--					
	oak, overcup	--	--					
	oak, water	(80)	--					
	pecan	--	--					
	persimmon	--	--					
	sugarberry	--	--					
	sweetgum	(80)	--					
	sycamore	--	--					
REELFOOT silty clay loam, loam 0-1% slopes	ash, green	--	60-90	slight	slight	slight	ash, green	2 o 4
	cottonwood	--	90-120				cottonwood	
	elms, Am. & slippery	--	--				oak, cherrybark	
	hack. & sugarberry	--	--				oak, Nuttall	
	oak, cherrybark	--	90-110				oak, Shumard	
	oak, Nuttall	--	80-100				oak, swamp chestnut	
	oak, Shumard	--	--				oak, water	
	oak, swamp chestnut	--	--				oak, willow	
	oak, water	--	80-100				sweetgum	
	oak, white	--	--				sycamore	
	oak, willow	--	90-105				yellow-poplar	
	sweetgum	--	90-110					
	sycamore	--	--					
	tupelo, black	--	--					
	yellow-poplar	--	--					
RILLA fine sandy loam, silt loam 0-3% slopes	ash, green	--	60-80	slight	slight	slight	ash, green	2 o 4
	cottonwood	--	85-115				cottonwood	
	elm, Am. & slippery	--	--				oak, cherrybark	
	hack. & sugarberry	--	--				oak, Nuttall	
	oak, cherrybark	--	90-105				oak, Shumard	
	oak, Nuttall	--	75-95				oak, swamp chestnut	
	oak, Shumard	--	--				oak, water	
	oak, swamp chestnut	--	--				oak, willow	
	oak, water	--	75-95				sweetgum	
	oak, white	--	--				sycamore	
	oak, willow	--	80-100				yellow-poplar	
	sweetgum	--	90-105					
	sycamore	--	--					
	tupelo, black	--	--					
	yellow-poplar	--	--					

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 11 of 13

	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ROBINSONVILLE fine sandy loam, silt loam, very fine sandy loam, loam, loam-very fine sandy loam undulating, fine sandy loam fre- quently flooded. 0-8% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry maple, silver pecan sweetgum sycamore willow, black	87 107 + 8 -- -- -- -- 109 -- -- --	80-102 87-122 -- -- -- -- 92-118 -- -- --	slight	slight	slight	ash, green cottonwood sweetgum sycamore	1 o 4
ROEBUCK clay, silt loam 0-1% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust oak, cherrybark oak, Nuttall oak, swamp chestnut oak, water oak, willow pecan sweetgum sycamore	(80) (90) -- -- -- 85 82 -- 96 (80) -- 92 + 1 --	58-92 70-100 -- -- -- 73-92 70-89 -- 84-98 70-84 -- 80-99 --	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, water oak, willow sweetgum sycamore	2 w 6
SHARKEY clay, loamy sand, silty clay, silty clay loam, silt loam, silty clay loam-clay un- dulating 0-8% slopes	ash, green baldcypress cottonwood elms, Am. & slippery hack. & sugarberry hickory, water honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sweetgum sycamore willow, black	85 + 10 -- 100 + 12 -- -- -- -- -- 90 + 15 90 + 8 -- -- -- 92 + 8 88 + 12 -- -- 91 + 10 -- -- --	63-97 -- 80-110 -- -- -- -- -- 78-95 78-97 -- -- -- 80-99 78-92 -- -- 79-98 -- -- --	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, water oak, willow sweetgum sycamore	2 w 6
SHARKEY clay overflow 0-2% slopes	ash, green baldcypress cottonwood elms, Am. & slippery hack. & sugarberry hickory, water honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sweetgum sycamore willow, black	(70) -- (90) -- -- -- -- -- -- (80) (80) -- -- -- (80) (80) -- -- (80) -- -- --	-- --	slight	severe	severe	ash, green baldcypress cottonwood oak, Nuttall sweetgum	3 w 6

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 12 of 13

	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
STERLINGTON fine sandy loam, sandy clay, silt loam, very fine sandy loam, silty clay loam, very fine sandy loam undulating 0-5% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry hickories oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 -- -- -- -- 85-105 80-95 -- -- 80-100 -- 85-95 -- -- 80-100 -- -- -- --	slight	slight	slight	ash, green oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 o 4
TENSAS silty clay, silty clay loam 0-1% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry honeylocust oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, willow pecan sassafras sweetgum sycamore tupelo, black	80 + 2 103 -- -- -- 101 + 6 96 + 9 -- -- -- 94 + 8 104 + 10 -- -- -- 98 + 7 -- -- --	58-92 83-113 -- -- -- 89-108 84-103 -- -- -- 82-101 94-108 -- -- -- 86-105 -- -- --	slight	severe	moderate	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore	2 w 6
TIPTONVILLE silty clay, silty clay loam 0-6% slopes	ash, green cottonwood elms, Am. & slippery hack. & sugarberry oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan sweetgum sycamore tupelo, black yellow-poplar	-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --	60-90 90-120 -- -- 90-110 80-100 -- -- 80-100 -- 90-105 -- 90-110 -- -- -- -- --	slight	slight	slight	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar	2 o 4

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 13 of 13

Soils	Potential Productivity			Management Problems			Species Suitability for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TUNICA	ash, green	98 + 11	76-110	slight	severe	moderate	ash, green	2 w 6
clay, silty clay,	cottonwood	108 + 6	88-118				cottonwood	
clay, silty clay loam,	elms, Am. & slippery	--	--				oak, cherrybark	
clay, silty clay loam-	hack. & sugarberry	--	--				oak, Nuttall	
clay undulating,	honeylocust	--	--				oak, Shumard	
clay frequently	maple, red	--	--				oak, swamp chestnut	
flooded	oak, cherrybark	92 + 5	80-99				oak, water	
	oak, Nuttall	104 + 8	92-106				oak, willow	
	oak, overcup	--	--				sweetgum	
	oak, Shumard	--	--				sycamore	
0-8% slopes	oak, swamp chestnut	--	--					
	oak, water	96 + 7	84-103					
	oak, willow	93 + 4	86-97					
	pecan	--	--					
	persimmon	--	--					
	sweetgum	92 + 13	85-101					
	sycamore	--	--					
TUTWILER	ash, green	--	60-90	slight	slight	slight	ash, green	2 o 4
loam, silty clay	cottonwood	--	85-115				cottonwood	
loam, silt loam	elms, Am. & slippery	--	--				oak, cherrybark	
	hack. & sugarberry	--	--				oak, Nuttall	
0-1% slopes	oak, cherrybark	--	90-110				oak, Shumard	
	oak, Nuttall	--	80-100				oak, swamp chestnut	
	oak, Shumard	--	--				oak, water	
	oak, swamp chestnut	--	--				oak, willow	
	oak, water	--	80-100				sweetgum	
	oak, white	--	--				sycamore	
	oak, willow	--	90-105				yellow-poplar	
	pecan	--	--					
	sweetgum	--	90-110					
	sycamore	--	--					
	tupelo, black	--	--					
	yellow-poplar	--	--					

Table 3, SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY, is a summary of the most important interpretations for a woodland suitability group of soils.

Column one (1) includes the suitability group symbol and a brief description of the group of soils, including their important hazards and limitations for woodland use and management.

Column two (2) is a tabulation of the soils within each woodland suitability group.

Column three (3) is a list of some commercially-important tree species which occur on the soils in each suitability group.

Column four (4) shows the site class (site index rounded off to the nearest 10-foot interval) for the most important tree species listed in column three.

Column five (5) lists some of the most important tree species which are suitable for planting on the soils in each suitability group.

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY Page 1 of 3

Woodland Suitability Group (Symbol and Description)	Soils	Productivity		Species Suitability for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
1o4 Well drained, loamy soils with very high potential productivity; no serious management problems; suitable for southern hardwoods.	<u>Bruin</u> silt loam, very fine sandy loam, silt loam undulating, 0-3% slopes. <u>Coushatta</u> silt loam, silty clay loam, silty clay loam undulating, 0-3% slopes. <u>Norwood</u> clay, silty clay loam, silt loam, fine sandy loam, clay-silty clay loam undulating, 0-5% slopes. <u>Robinsonville</u> fine sandy loam, silt loam, very fine sandy loam, loam, loam-very fine sandy loam undulating, fine sandy loam frequently flooded 0-8% slopes.	ash, green	90	ash, green
		cottonwood	110	cottonwood
		elms, American & slippery	-	sweetgum
		hackberry & sugarberry	-	sycamore
		honeylocust	-	
		maple, silver	-	
		pecan	-	
		persimmon	-	
		sweetgum	100	
		sycamore	-	
1w5 Moderately wet, loamy soils with very high potential productivity; moderate equipment limitations due primarily to excess water; best suited for southern hardwoods.	<u>Commerce</u> sandy loam, silt loam, fine sandy loam, loam, silty clay loam, fine sandy loam undulating, silty clay loam undulating, silt loam frequently flooded, 0-5% slopes. <u>Convent</u> silt loam, silt loam undulating, fine sandy loam, 0-3% slopes.	ash, green	80	ash, green
		baldcypress	-	cottonwood
		cottonwood	120	oak, Nuttall
		elm, American & slippery	-	oak, water
		hackberry & sugarberry	-	sycamore
		maple, silver	-	
		oak, Nuttall	90	
		oak, water	110	
		pecan	-	
		persimmon	-	
1w6 Wet, loamy soils with very high potential productivity; severe equipment limitations and moderate seedling mortality due primarily to excess water; best suited for southern hardwoods.	<u>Amagon</u> silt loam, silty clay loam, 0-3% slopes. <u>Forestdale</u> very fine sandy loam, clay, silty clay loam, silt loam, 0-8% slopes. <u>Mhoon</u> very fine sandy loam, silt loam, silty clay loam, clay, fine sandy loam, sandy clay loam, silt loam undulating, silt loam overflow, 0-3% slopes.	ash, green	80	ash, green
		baldcypress	-	cottonwood
		cottonwood	100	oak, cherrybark
		elms, American & slippery	-	oak, Nuttall
		hackberry & sugarberry	-	oak, Shumard
		honeylocust	-	oak, swamp chestnut
		oak, cherrybark	90	oak, water
		oak, Nuttall	100	oak, willow
		oak, overcup	-	sweetgum
		oak, Shumard	-	sycamore
2o4 Well drained loamy soils with high potential productivity; no serious management problems; best suited for southern hardwoods.	<u>Askew</u> silt loam, fine sandy loam, fine sandy loam undulating, 0-3% slopes. <u>Beulah</u> fine sandy loam, very fine sandy loam, sandy loam, fine sandy loam undulating, 0-8% slopes. <u>Bosket</u> fine sandy loam, sandy loam, silt loam, fine sandy loam undulating, 0-12% slopes. <u>Caspiana</u> silt loam, silty clay loam, 0-3% slopes. <u>Dubbs</u> very fine sandy loam, silty clay loam, fine sandy loam, silt loam, loamy sand, loamy sand-fine sandy loam undulating, 0-8% slopes. <u>Gallion</u> silt loam, silty clay loam, silt loam-silty clay loam undulating, 0-8% slopes.	ash, green	80	ash, green
		ash, white	-	cottonwood
		cottonwood	100	oak, Nuttall
		elms, American & slippery	-	oak, Shumard
		hackberry & sugarberry	-	oak, swamp chestnut
		hickories	-	oak, water
		oak, cherrybark	90	oak, willow
		oak, Nuttall	90	sweetgum
		oak, Shumard	-	sycamore
		oak, swamp chestnut	-	yellow-poplar

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

Page 2 of 3

Woodland Suitability Group (Symbol and Description)	Soils	Productivity		Species Suitability for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>2o4</u> (continued)	<u>Goldman</u> very fine sandy loam, 0-8% slopes. <u>Lonoke</u> silt loam, 0-1% slopes. <u>Mer Rouge</u> silt loam, silty clay loam, 0-1% slopes. <u>Reelfoot</u> silty clay loam, loam, 0-1% slopes. <u>Rilla</u> fine sandy loam, silt loam, 0-3% slopes. <u>Sterlington</u> fine sandy loam, sandy clay, silt loam, very fine sandy loam, silty clay loam, very fine sandy loam undulating, 0-5% slopes. <u>Tiptonville</u> silt loam, silty clay loam, 0-6% slopes. <u>Tutwiler</u> loam, silty clay loam silt loam, 0-1% slopes.			
<u>2w5</u> Moderately wet, loamy and clayey over loamy soils with high potential productivity; moderate equipment limitations and slight to moderate seedling mortality due primarily to excess water; best suited for southern hardwoods.	<u>Bowdre</u> clay, silty clay, silty clay loam, silty clay undulating, 0-8% slopes. <u>Cypremort</u> silt loam, silty clay loam, silt loam undulating, 0-5% slopes. <u>Dundee</u> clay loam, fine sandy loam, loam, silty clay loam, silty loam, very fine sandy loam, silt loam-fine sandy loam undulating, 0-8% slopes. <u>Gallion</u> clay, clay undulating, 0-8% slopes. <u>Hebert</u> silt loam, silty clay loam, silt loam-silty clay loam undulating, 0-5% slopes. <u>Latanier</u> clay, silty clay loam, 0-3% slopes. <u>McGhee</u> silt loam, silt loam undulating, 0-3% slopes. <u>Newellton</u> clay, silty clay loam, silty clay loam-clay undulating, 0-3% slopes.	ash, green cottonwood elms, American & slippery hackberry&sugarberry honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, white oak, willow pecan persimmon sweetgum sycamore tupelo, black yellow-poplar	80 110 - - - - 90 90 - - - 90 - - 100 - - 90 - - -	ash, green cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar
<u>2w6</u> Wet, clayey soils with high potential productivity; severe equipment limitations and moderate seedling mortality due primarily to excess water; best suited for southern hardwoods.	<u>Alligator</u> clay, silty clay loam, clay undulating, 0-8% slopes. <u>Baldwin</u> clay, silty clay loam, clay undulating, silty clay loam undulating, 0-3% slopes. <u>Buxin</u> clay, silty clay loam, silt loam, clay undulating, 0-3% slopes. <u>Earle</u> clay, clay undulating, sandy clay loam undulating, 0-8% slopes. <u>Iberia</u> clay, silty clay loam, silt loam, 0-2% slopes. <u>Moreland</u> clay, silty clay loam silt loam, silty clay loam-clay undulating, 0-5% slopes. <u>Perry</u> clay, silt loam, clay undulating, 0-5% slopes. <u>Portland</u> clay, silty clay loam silt loam, silt loam-clay undulating, 0-5% slopes. <u>Roeback</u> clay, silt loam, clay undulating, 0-3% slopes. <u>Sharkey</u> clay, loamy sand, silty clay, silty clay loam, silty clay loam-clay undulating, 0-8% slopes.	ash, green baldcypress cottonwood elm, American & slippery hackberry&sugarberry hickory, water honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, Shumard oak, swamp chestnut oak, water oak, willow pecan persimmon sassafras sweetgum sycamore tupelo, black tupelo, water willow, black yellow-poplar	80 - 100 - - - - - 90 90 - - - 90 90 - - - - 90 - - - -	ash, green baldcypress cottonwood oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

Page 3 of 3

Woodland Suitability Group (Symbol and Description)	Soils	Productivity		Species Suitability for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>2w6</u> (continued)	<u>Tensas</u> silty clay, silty clay loam, 0-1% slopes. <u>Tunica</u> clay, silty clay, silty clay loam, silty clay loam-clay undulating, 0-8% slopes.			
<u>2s5</u> Well drained, coarse loamy soils with sandy surfaces and high potential productivity; moderate equipment limitations and seedling mortality due primarily to the low water-holding capacity of the surface best suited for southern hardwoods.	<u>Bruno</u> sandy loam, loamy sand, loamy fine sand undulating, 0-8% slopes. <u>Patterson</u> loamy fine sand, loamy fine sand undulating, 0-3% slopes.	ash, green birch, river cherry, black cottonwood elm, American hackberry&sugarberry magnolia maple, red oak, cherrybark oak, Shumard oak, southern red oak, swamp chestnut oak, water oak, white oak, willow sweetgum sycamore tupelo, black walnut, black yellow-poplar	- - - - - - - - - - - 90 - 90 100 - - - -	ash, green oak, cherrybark oak, Nuttall oak, Shumard oak, swamp chestnut oak, water oak, willow sweetgum sycamore yellow-poplar
<u>3w6</u> Wet, clayey soil subject to overflow, with moderately high potential productivity; equipment limitations and seedling mortality severe, due primarily to excess water; best suited for southern hardwoods.	<u>Alligator</u> clay overflow, 0-2% slopes. <u>Buxin</u> clay overflow, 0-2% slopes. <u>Iberia</u> clay overflow, 0-2% slopes. <u>Moreland</u> clay overflow, 0-2% slopes. <u>Perry</u> clay overflow, 0-2% slopes. <u>Portland</u> clay overflow, 0-2% slopes. <u>Sharkey</u> clay overflow, 0-2% slopes.	ash, green baldcypress cottonwood elm, American & slippery hackberry&sugarberry hickory, water honeylocust maple, red oak, cherrybark oak, Nuttall oak, overcup oak, swamp chestnut oak, water oak, willow persimmon sweetgum sycamore tupelo, water willow, black	70 - 90 - - - - - 80 80 - - 80 80 - 80 - - -	ash, green baldcypress cottonwood oak, Nuttall sweetgum
<u>3s6</u> Well drained, sandy soils with moderately high potential productivity; equipment limitations moderate and seedling mortality severe due to low water-holding capacity; best suited for southern hardwoods.	<u>Crevasse</u> sand, loamy sand, fine sand, fine sand undulating, fine sand undulating-overflow, 0-8% slopes.	cottonwood hackberry & sugarberry maple, silver pecan sycamore	110 - - - -	cottonwood sycamore

